

RAW SEQUENCE LISTING

DATE: 04/11/2001

PATENT APPLICATION NO: US/09/817,387

TIME: 14:01:12

Input Seq : A:\PTO.Lst

Output Seq : N:\CRF3\04112001\I817387.raw

P.S

1 <110> APPLICANT: Max-Planck Center for Molecular Medicine
 2 <120> TITLE OF INVENTION: Oligonucleotides and the Use Thereof
 3 <130> OTHER PUBLICATION NO: 101199-24

4 <140> CURRENT APPLICATION NUMBER: US/09/817,387

5 <150> CURRENT FILING DATE: 1999-03-26

6 <151> PRIOR APPLICATION NUMBER: DE 197 20 151.2

7 <152> PRIOR FILING DATE: 1997-03-02

8 <160> NUMBER OF SEQ ID NOS: 20

9 <170> SOFTWARE: SeqEdit Ver. 2.1

10 <210> SEQ ID NO: 1

11 <211> LENGTH: 31

12 <212> TYPE: DNA

13 <213> ORGANISM: Artificial Sequence

14 <220> FEATURE:

15 <221> OTHER INFORMATION: Description of Artificial Sequence:

16 oligonucleotide, linkages between positions 1 to

17 20 are phosphorothioates, linkages between

18 positions 20 to 31 are phosphodiester

19 <300> SEQUENCE 1

20 tcagattagt actgttcaga gttagggtta g

31

21 <210> SEQ ID NO: 2

22 <211> LENGTH: 25

23 <212> TYPE: DNA

24 <213> ORGANISM: Artificial Sequence

25 <220> FEATURE:

26 <221> OTHER INFORMATION: Description of Artificial Sequence:

27 oligonucleotide, linkages between positions 1 to

28 20 are phosphorothioates, linkages between

29 positions 20 to 25 are phosphodiester

30 <300> SEQUENCE 2

31 tcagattagt actgttcaga gttag

25

32 <210> SEQ ID NO: 3

33 <211> LENGTH: 33

34 <212> TYPE: DNA

35 <213> ORGANISM: Artificial Sequence

36 <220> FEATURE:

37 <221> OTHER INFORMATION: Description of Artificial Sequence:

38 oligonucleotide, linkages between positions 1 to

39 20 are phosphorothioates, linkages between

40 positions 20 to 33 are phosphodiester

41 <300> SEQUENCE 3

42 tcagattagt actgttcaga caqtaggggt tag

33

43 <210> SEQ ID NO: 4

44 <211> LENGTH: 31

45 <212> TYPE: DNA

46 <213> ORGANISM: Artificial Sequence

47 <220> FEATURE:

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/817,387

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Input Seq : A:\PTO.txt

Output Seq : N:\CRF3\04112001\I817387.raw

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70 <223> OTHER INFORMATION: Description of Artificial Sequence:
71     oligonucleotide, linkages between positions 1 to
72     20 are phosphorothioates, linkages between
73     positions 20 to 31 are phosphodiester
75 <400> SEQUENCE: 4
76 tcagattagg actgtcaga gtagcaga g
31
79 <210> SEQ ID NO: 5
80 <211> LENGTH: 25
81 <212> TYPE: DNA
82 <213> ORGANISM: Artificial Sequence
84 <220> FEATURE:
85 <223> OTHER INFORMATION: Description of Combined DNA/RNA Molecule:
86     oligonucleotide, linkages between positions 1 to
87     19 are phosphorothioates, linkages between
88     positions 19 to 25 are phosphodiester
90 <220> FEATURE:
91 <223> OTHER INFORMATION: positions 20 to 25 carry 2'-OCH3 modified ribosyl
92     residues
94 <400> SEQUENCE: 5
95 tcagattagg actgtcaga guag
25
98 <210> SEQ ID NO: 6
99 <211> LENGTH: 27
100 <212> TYPE: DNA
101 <213> ORGANISM: Artificial Sequence
103 <220> FEATURE:
104 <223> OTHER INFORMATION: Description of Combined DNA/RNA Molecule:
105     oligonucleotide, linkages between positions 1 to 20
106     are phosphorothioates, linkages between
107     positions 20 to 27 are phosphodiester,
109 <220> FEATURE:
110 <223> OTHER INFORMATION: positions 21 to 27 carry 2'-OCH3 modified ribosyl
111     residues
113 <400> SEQUENCE: 6
114 tcagattagg actgtcaga uaguuag
27
117 <210> SEQ ID NO: 7
118 <211> LENGTH: 35
119 <212> TYPE: DNA
120 <213> ORGANISM: Artificial Sequence
122 <220> FEATURE:
123 <223> OTHER INFORMATION: Description of Combined DNA/RNA Molecule:
124     oligonucleotide, linkages between positions 1 to
125     19 are phosphorothioates, linkages between
126     positions 19 to 35 are phosphodiester,
128 <220> FEATURE:
129 <223> OTHER INFORMATION: positions 21 to 35 carry 2'-OCH3 modified ribosyl
130     residues
132 <400> SEQUENCE: 7
133 tcagattagg actgtcaga guuagggta gacaa
35
136 <210> SEQ ID NO: 8

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RAW SEQUENCE LISTING DATE: 04/12/2001
 PATENT APPLICATION: 09/09/817, 187 TIME: 14:01:12

Input Set : A:\PTO.txt
 Output Set : M:\CRF\04112001\1817-187.raw

137 <211> LENGTH: 30
 138 <212> TYPE: DNA
 139 <213> ORGANISM: Artificial Sequence
 141 <220> FEATURE:
 142 <221> OTHER INFORMATION: Description of Artificial Sequence:
 143 oligonucleotide, linkages between positions 1 to
 144 15 are phosphorothioates, linkages between
 145 positions 15 to 17, 19 to 21 and 23 to 30 are
 W--> 146 phosphodiesters,
 148 <222> FEATURE:
 149 <223> OTHER INFORMATION: linkages between positions 17 to 19 and 23 to 25
 150 are 13' to 45' phosphoramidates
 151 <400> SEQUENCE: 30
 152 tcagattagt actgttcaga ggttagacaa
 156 <210> SEQ ID NO: 9
 157 <211> LENGTH: 34
 158 <212> TYPE: DNA
 159 <213> ORGANISM: Artificial Sequence
 161 <220> FEATURE:
 162 <221> OTHER INFORMATION: Description of Combined DNA/RNA Molecule:
 163 oligonucleotide, linkages between positions 1 to
 164 15 are phosphorothioates, linkages between
 165 positions 15 to 20 are phosphodiesters,
 167 <222> FEATURE:
 168 <223> OTHER INFORMATION: position 21 n(L)= linker is
 169 3'-O(PO2)GCH2CH(CH2COOH)-(CH2)4-NH-,
 171 <224> FEATURE:
 172 <225> OTHER INFORMATION: linkages between positions 22 to 34 are
 173 [N-(2-aminoethyl)glycine] methylene carbonyl
 174 residues
 176 <400> SEQUENCE: 9
 W--> 177 tcagattagt actgttcaga ntagggttag acaa 34
 180 <210> SEQ ID NO: 10
 181 <211> LENGTH: 31
 182 <212> TYPE: DNA
 183 <213> ORGANISM: Artificial Sequence
 185 <220> FEATURE:
 186 <221> OTHER INFORMATION: Description of Artificial Sequence:
 187 oligonucleotide, linkages between positions 1 to
 188 20 are phosphorothioates, linkages between
 189 positions 20 to 31 are phosphodiesters,
 191 <222> FEATURE:
 192 <223> OTHER INFORMATION: position 31 is represented by
 193 3'-azido-2',3'-dideoxyguanosine
 195 <400> SEQUENCE: 10
 196 tcagattagt actgttcaga gttagggtta g 31
 199 <210> SEQ ID NO: 11
 200 <211> LENGTH: 28
 201 <212> TYPE: DNA

DAIRY: 04/11/2001

1199-11:91:12

Content Set: M:\CREATING\411200\1\1817387.raw

WEH

RAW SEQUENCE LISTING
 PATENT APPLICATION: 03/09/817,387
 DATE: 04/11/2001
 TIME: 14:01:12

Output Set : n:\crf3\0417387\17387.raw
 Output Set : n:\crf3\0417387\17387.raw

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269 <210> SEQ ID NO: 11
270 <211> LENGTH: 23
271 <212> TYPE: DNA
272 <213> ORGANISM: Artificial Sequence
273 <220> FEATURE:
274 <223> OTHER INFORMATION: Description of Artificial Sequence:
275     oligonucleotides, linkages between positions 1 to
276     12 are phosphorothioates, linkages between
277     positions 12 to 23 are N3' to N5' phosphoramidates
278 <220> FEATURE:
281 <223> OTHER INFORMATION: position 23 is modified by a 3' aminodeoxyribosyl
282     residue
283 <400> SEQUENCE 11
284 gtactgetca gagttagggt tag                               23
288 <210> SEQ ID NO: 15
289 <211> LENGTH: 20
290 <212> TYPE: DNA
291 <213> ORGANISM: Artificial Sequence
292 <220> FEATURE:
293 <223> OTHER INFORMATION: Description of Artificial Sequence:
294     oligonucleotides, linkages between positions 1
295     to 12 are phosphorothioates, linkages between
296     positions 12 to 20 are N3' to N5' phosphoramidates
297 <220> FEATURE:
298 <223> OTHER INFORMATION: position 20 is modified by a 3'-aminodeoxyribosyl
299     residue
303 <400> SEQUENCE 15
304 gtactgetca gagttagggt                                  20
307 <210> SEQ ID NO: 16
308 <211> LENGTH: 33
309 <212> TYPE: DNA
310 <213> ORGANISM: Artificial Sequence
311 <220> FEATURE:
312 <223> OTHER INFORMATION: Description of Combined DNA/RNA Molecule:
313     oligonucleotide
314 <220> FEATURE:
315 <223> OTHER INFORMATION: Description of Artificial Sequence:
316     oligonucleotides, linkages between positions 1 to
317     12 are phosphorothioates, linkages between
318     positions 12 to 20 are phosphodiester
319 <220> FEATURE:
320 <223> OTHER INFORMATION: positions 13 to 23 carry 2'-OCH3 modified
321     ribosylresidues
322 <220> FEATURE:
323 <223> OTHER INFORMATION: linkages between positions 20 to 23 are
324     phosphorothioates
330 <400> SEQUENCE 16
331 gtactgetca gaguuagggu uag                               23
334 <210> SEQ ID NO: 17

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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

VERIFICATION SUMMARY

PATENT APPLICATION: US/99/817,387

DATE: 04/11/2001

TIME: 14:01:13

Input File: A:\PTO.txt

Output File: H:\CRF3\04112001\I817387 LAW

L:93070 C: Current Application number differs, Copied Current Application Number
 L:10 M:273 C: Current Filing Date differs, Replaced Current Filing Date
 L:146 M:259 W: Allowed number of lines exceeded, <223> Other Information:
 L:177 M:258 W: Mandatory Feature missing, <211> not found for SEQ ID#19
 L:177 M:258 W: Mandatory Feature missing, <212> not found for SEQ ID#19
 L:177 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#19
 L:209 M:259 W: Allowed number of lines exceeded, <213> Other Information:
 L:266 M:258 W: Mandatory Feature missing, <211> not found for SEQ ID#17
 L:266 M:258 W: Mandatory Feature missing, <212> not found for SEQ ID#17
 L:266 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#17
 L:354 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#17
 L:354 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#17
 L:354 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#17
 L:431 M:258 W: Mandatory Feature missing, <211> not found for SEQ ID#20
 L:431 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#20
 L:431 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#20
 L:454 M:258 W: Mandatory Feature missing, <211> not found for SEQ ID#21
 L:454 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#21
 L:454 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#21
 L:519 M:258 W: Mandatory Feature missing, <211> not found for SEQ ID# 24
 L:519 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID# 24
 L:519 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#24